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(71) Applicants (for all designated States except US):
DAINICHISEIKA COLOR & CHEMICALS MFG. CO., LTD. [JP/JP]; 7-6, Nihonbashi-Bakurocho 1-chome, Chuo-ku, Tokyo 1038383 (JP). **NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY** [JP/JP]; 3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 1008921 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TANAKA, Norio** [JP/JP]; c/o **DAINICHISEIKA COLOR & CHEMICALS MFG. CO., LTD.**, 7-6, Nihonbashi-Bakurocho 1-chome,

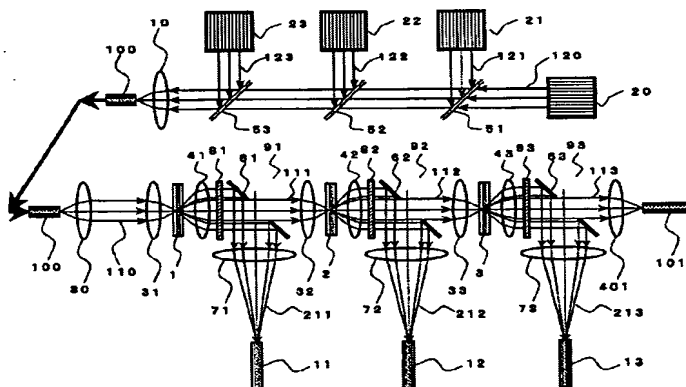
Chuo-ku, Tokyo 1038383 (JP). **UENO, Ichiro** [JP/JP]; 5-5, Takamori 3-chome, Isehara-shi, Kanagawa 2591114 (JP). **HIRAGA, Takashi** [JP/JP]; c/o NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY, Kansai, 8-31, Midorigaoka 1-chome, Ikeda-shi, Osaka 5638577 (JP). **TANIGAKI, Nobutaka** [JP/JP]; c/o NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY, Kansai, 8-31, Midorigaoka 1-chome, Ikeda-shi, Osaka 5638577 (JP). **MIZOKURO, Toshiko** [JP/JP]; c/o NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY, Kansai, 8-31, Midorigaoka 1-chome, Ikeda-shi, Osaka 5638577 (JP). **YAMAMOTO, Noritaka** [JP/JP]; c/o NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY, Kansai, 8-31, Midorigaoka 1-chome, Ikeda-shi, Osaka 5638577 (JP). **MOCHIZUKI, Hiroyuki** [JP/JP]; c/o NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY, Kansai, 8-31, Midorigaoka 1-chome, Ikeda-shi, Osaka 5638577 (JP).

(74) Agents: **YOSHIDA, Kenji** et al.; 34-12, Kichijoji-honcho 1-chome, Musashino-shi, Tokyo 1800004 (JP).

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(54) Title: OPTICALLY CONTROLLED OPTICAL-PATH-SWITCHING APPARATUS, AND METHOD OF SWITCHING OPTICAL PATHS



(57) **Abstract:** An optical signal optical path switching method comprising steps of using a thermal lens based on a distribution of refractive index produced reversibly caused by temperature increase generated in an area of the light-absorbing layer film of thermal lens forming devices 1, 2 and 3, that has absorbed control light beams 121, 122 and 123, and in the periphery thereof, causing the converged signal light beam to exit from the thermal lens forming device with an ordinary divergence angle when the control light beams 121, 122 and 123 have not been irradiated and no thermal lens has been formed, and causing the converged signal light beam to exit from the thermal lens forming device with a divergence angle larger than the ordinary divergence angle when the control light beams have been irradiated and a thermal lens has been formed, and causing the signal light beam to travel straight through holes 61, 62 and 63 of mirrors provided with the holes for the signal light beam to pass through when the control light beams have not been irradiated and no thermal lens has been formed, and changing the optical path by reflecting the signal light beam using the hole-provided mirror when the control light beams have been irradiated and a thermal lens has been formed.